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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 4 2010

REPLY TO THE ATTENTION OF:
WW-16J

U.S. Army Corps of Engineers, Louisville District
ATTN: Ann M. Nye, CELRL-OP-FW
P.O. Box 489
Newburgh, Indiana 47629-0489

Re: Public Notice No. LRL-2009-1048-amn / Triad Mining-Log Creek Expansion

Dear Ms. Nye:

The United States Environmental Protection Agency has reviewed the subject public notice issued on February 3, 2010. The applicant, Triad Mining (Triad), proposes to expand their surface mining operations (#S-32) at the Log Creek facility in Pike and Warrick Counties, Indiana west of the town of Spurgeon and northwest of the town of Lynnvile. The proposed project would impact 49,416 linear feet of streams, 7.11 acre of wetlands and 34.23 acres of open water within the South Fork Patoka River Watershed.

EPA has also reviewed the document titled "Surface Mine Permit #S-32 & Add. Area, Underground Permit #U-32, Log Creek Complete, USACE ID No. LRL-2009-1048-amn." EPA understands that this permit includes mitigation for previous wetland and stream impacts conducted prior to Triad's 2006 ownership of mineral rights. We offer the following comments and questions based on our review:

Permit Application – General Comments

- In general it is important to point out that the permit requirements under Section 404 of the Clean Water Act (CWA) are separate from those covered in the Surface Mining Control and Reclamation Act (SMCRA). While EPA understands the importance of complying with SMCRA regulations, the applicant must also comply with the Section 404(b)(1) Guidelines and the 2008 Compensatory Mitigation Rule. As you know, the 404 (b)(1) Guidelines require that the applicant demonstrate there are no practicable alternatives available that would have a less adverse impact on the aquatic environment for non-water dependant activities. The Guidelines presume that less damaging upland alternatives are available for these activities unless demonstrated otherwise by the applicant. The applicant must follow a sequence of steps to be in compliance with the 404 (b)(1) Guidelines; which include avoidance, minimization, and compensation for unavoidable impacts. EPA recommends that the applicant provide better documentation of avoidance and minimization efforts so that we may evaluate

- On page 9, there is a reference to previous AML reclamation within the project area. Please provide a map that indicates the location of AML reclamation sites in the South Fork Patoka River relative to the location of the Log Creek Complex. The applicant must provide information that addresses whether the project may affect any of the AML work.
- As detailed on page 11, the South Fork Patoka River is listed by the State of Indiana for impaired for biotic communities and total dissolved solids (TDS) exceedences due to past mining practices in the watershed. The proposed project must not cause or contribute to further impairment to the river.

Biological Monitoring Report

As a part of the monitoring program for affected and reconstructed streams, biological monitoring is required to ensure there is no degradation to the communities that inhabit the streams. Biological monitoring, along with water chemistry and physical assessments, must occur prior to the initiation of mining activities to establish baseline conditions, during the mining activities to assist in determining potential impacts to aquatic habitat, and must continue at least five years after the completion of stream restoration and site reclamation activities at the mine site where appropriate to determine mitigation success.

The biological report included with the permit application contains baseline information for the streams within the proposed expansion area. However, no details were included for waters within previously mined areas. Triad must include biological monitoring of all water resources previously impacted and proposed to be impacted in order to fully evaluate the cumulative impacts of mining in the immediate project area.

- Triad needs to revise the report to reflect the correct number of sample points sampled as listed in table 3. This table shows six sampling locations.
- The biological monitoring report lacks a discussion section in which the results should be interpreted. This information serves as a minimum goal for any approved post mining aquatic life use of these specific reaches.
- As this monitoring was conducted in mid July, it may not be a complete assessment of the seasonal functionality of ephemeral or intermittent streams. To fully evaluate this report Triad should be required to evaluate the baseflow conditions of the impacted streams throughout the year and various seasons.

Mitigation Plan

Currently, the mitigation plan for the proposed project is inadequate, as it does not meet the minimum requirements set forth in the 2008 Compensatory Mitigation Rule. Please see the detailed comments below in regards to the proposed mitigation plan:

- Triad needs to include the following items in a clear, organized table: the name/identification of each proposed mitigation feature, its location, type of mitigation proposed (wetland or stream), proposed flow regime or plant

community, size (linear foot, acreage), buffer width, and plant community/land use of the buffer.

- The current proposal does not include protection of mitigation streams in perpetuity. As stated on page 15, “no permanent deed restrictions(s), drainage easement(s), or conservation easement(s) are proposed for any of the affected properties that contain the restored post-mine drainage channels/streams.” In order to receive mitigation credit for proposed stream restoration, the areas must be protected by a conservation easement or environmental covenant as required by the 2008 Compensatory Mitigation Rule. Triad must amend the proposal to include the type of protective measure proposed and adjust the remainder of the document with the proposed protective measures.
- Page 16 of the application states that “buffer zones will consist of grass-legume vegetation and/or tree and shrub plantings.” EPA maintains that a minimum 50 foot buffer zone be established on each side of the stream and be vegetated with trees and shrubs. The survival rate of this planted area should be monitored for a minimum of five years and achieve 80% aerial coverage of native vegetation appropriate for stream buffer areas.
- Also on page 16, reference is made to restored perennial streams, however, according to information provided in the application package, no impacts are proposed to perennial streams onsite. Triad needs to clarify.
- All impacted channels should be reconstructed using natural stream design methods. EPA does not consider vegetated swales appropriate stream mitigation and no credit should be given for this activity.
- Page 19 of the application references permanent sediment ponds as part of the reclamation plan. The applicant must avoid placement of sediment ponds in stream channels to the maximum extent practicable. The applicant must thoroughly document the rationale for any unavoidable impacts.
- On page 24, it is stated that “clean concrete rubble and bricks are allowable for placement in restored stream.” These materials constitute construction debris. Only natural non-acidic rocks and substrate should be used in the stream reconstruction using natural stream design.
- The applicant must indicate whether the restored/mitigation wetlands referenced on page 27 will be constructed in reclaimed areas or areas undisturbed by the mining operation.
- On Page 28, Triad needs to remove the condition “(when allowed by farmers/landowners)” as the waters included as mitigation must be permanently protected through an appropriate legal instrument as previously mentioned.
- The applicant should provide a conceptual mitigation schedule. This should detail the extent of temporal losses and provide information about the timing of mitigation construction and monitoring.
- The applicant must provide planting plans and construction techniques for each wetland mitigation area.
- The adaptive management plan should be expanded to include any anticipated response to a potential shortcomings of the mitigation design (i.e. additional plantings would be installed if survival rate drops below required threshold).

- EPA does not agree that wetland mitigation compensates for stream impacts. The applicant must explain why there is a deficit in stream mitigation and document the rationale behind compensating for that deficiency with forested wetland mitigation.
- Financial assurances are required to ensure the success of mitigation in addition to those required for reclamation by the SMCRA performance bond. Provide financial assurances that will be in place to specifically ensure the success of the mitigation. Triad must include details on the dollar amount, type(s) of assurance (ex. performance bond) and release conditions. The account must be payable to a designee of the Corps or a standby trust agreement. Estimates of the construction, monitoring, and maintenance costs of mitigation activities will be necessary. Without this information, the Corps cannot evaluate whether the financial assurances are sufficient to cover any potential mitigation deficiencies.
- The applicant should define success criteria in the monitoring and mitigation plan. Specifically, they need to describe the methodologies that will be used to evaluate the mitigation streams during the monitoring period. The wetland evaluation should include more detail than “meeting the criteria necessary to be defined as a wetland.” At minimum, information should include evaluations of physical habitat, biological monitoring, vegetative cover, and percent coverage of invasive species. These measures should be in place to demonstrate that post mining conditions will be similar or better than pre-mining conditions. The results must be included in the monitoring reports submitted to the Corps.
- EPA acknowledges that the “foot-points method” could be used to articulate some functions of a stream, however, it is not appropriate for calculating stream mitigation ratios or converting the value of a stream into acres of wetlands. The applicant should discontinue its use in the rationale for stream mitigation.
- EPA recommends a mitigation package that provides mitigation ratios that are commensurate with replacement of the functions and values of impacted streams and wetlands while accounting for temporal loss. At this time EPA cannot comment on recommended ratios until the extent of all impacts and the proposed mitigation is clarified.

Cumulative Impacts Assessment

- The assessment should include more information about past, present and reasonably foreseeable future impacts to the South Fork Patoka River watershed in regards to the resulting cumulative impacts. Other active mining operations within the South Fork Patoka River watershed must be identified so that cumulative impacts may be accurately addressed. The applicant should discuss how the proposed operation, in conjunction with previous, current and future operations within the watershed may affect the physical, chemical and biological integrity of the South Fork Patoka River.

In conclusion, EPA objects to the issuance of a permit for this project as proposed because it does not meet the 404(b)(1) Guidelines. Additional information is needed to assess the project’s impacts and determine if those impacts are appropriately mitigated. Please notify us of Triad’s response to the comments outlined above and

compliance with the 404(b)(1) Guidelines. At present, references to avoidance and minimization are vague.

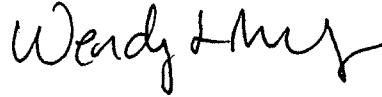
- Throughout the application and its attachments, references to approved mine boundaries and the Section 404 permit boundaries seem to be synonymous. However, it is EPA's understanding that only a portion of the surface mining operation is approved and this permit application is an expansion of that area which also includes the shadow area of the underground mine (#U-32). Further, EPA understands that a portion of the proposed impacts have occurred under previous mine operations. The nature and extent of Triad's activities in the previously mined areas are not clear. The applicant must expand the discussion regarding activities in the previously mined areas. Additionally, Triad must provide current and proposed impacts to each water body and identify what the current or proposed impact is (ex. mine-through, haul road crossing, etc.) for each water body. Impacts should be listed by linear feet of stream and acre(s) of wetland or surface water. The applicant must classify streams as ephemeral, intermittent, or perennial and wetlands as emergent, scrub/shrub, or forested. Flow regimes should not be subdivided for stream resources (i.e. short or long term flow intermittent streams).

Permit Application – Specific Comments

- The application references future construction of a wash plant within the previously mined area. The applicant should clarify the details on the location of any current wash plants and planned wash plants on either the #S-32 or #U-32 permit areas. Additionally, the applicant should provide information on the location and size of any current and proposed refuse disposal areas.
- One Page 6, Triad states that “the Log Creek Complex Section 404 permit area has been extensively disturbed by surface mining with pre-SMCRA disturbance of sub-watershed ranging from 30% to 60 % of the drainage basin(s). Post-SMCRA mine disturbance of sub-watershed ranges from 30% to 50% of the drainage basin(s).” It is not clear if Triad intends to reclaim the entire previously mined area of the Log Creek Complex.
- The applicant should provide aerial photographs of the Log Creek Complex for each year beginning with the year Triad acquired the mineral rights to the present so the Agencies can evaluate the activities that have occurred over that period of time.
- The applicant must provide a map of the mine design/plan that includes information about the permit limits, location of diversion ditches, top soil/overburden stockpiles, coal outcrop, aquatic resources, stream buffer zone, mining sequence, sources of hydrology such as springs and seeps, water quality monitoring stations, location of sediment ponds, etc. This is necessary to appropriately document the types and locations of features onsite and avoidance and minimization measures.
- The applicant should include a discussion in the permit narrative that addresses the reasons that up to four open pits are needed during mining operations.

any subsequent changes to the permit application. Thank you for the opportunity to provide comments on the public notice and permit documents. If you have any questions please contact Melissa Gebien at (312) 886-6833 or Andrea Schaller Hilton at (312)866-0746.

Sincerely,



fel Peter Swenson, Chief
Watersheds and Wetlands Branch

cc: Marylou Poppa Renshaw, Chief
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